

PLEISTOCENE.

LONDON :—

Admiralty Section, Westminster, A. S. K.

CAMBRIDGE :—

Barrington, A. S. K., and Brit. Mus. G. 5267.

ESSEX :—

Clacton, A. S. K.

NOTE ON THE NOMENCLATURE AND SYSTEMATIC ARRANGEMENT OF THE CLAUSILIIDÆ.

By A. S. KENNARD, F.G.S., and B. B. WOODWARD, F.L.S.

Read 8th June, 1923.

WHEN reviewing the British representatives of Clausiliidæ from the nomenclatorial point of view, we were surprised to find how lax as regards their nomenclature all the best-known authorities have been. Boettger, Vest, Möllendorff, and now Wagner, all when put to the test prove unreliable guides. Even the type of the genus has been lost sight of, and needless to say this, now that the genus is split up, affects the question in regard to the nomenclature of the resulting genera.

As a matter of fact, Children, in 1823, was the first to select a type, but his choice of *Cl. torticollis*, Oliv., the first of the species cited by Lamarck in his *Hist. Anim. s. Vert.*, is inadmissible because it was not one of the species comprised in the genus when founded by Draparnaud in 1805. Turton in 1831 (*Manual*, p. 6), who comes next, gave as type the *Turbo bidens* of Montagu, which is synonymous with the *Cl. rugosa* of Draparnaud, and Turton's selection must, therefore, be accepted.

When Gray in 1847 (*Proc. Zool. Soc.*, 1847, p. 177) also took "*Turbo bidens*" for the type of *Clausilia*, Drap., he evidently meant Montagu's species and not Linné's, unless since he gave his *Marpessa* as a synonym he was confusing at the time Müller's *Helix bidens* = *Cl. bidens*, Drap. = *Turbo laminatus*, Montagu, a proceeding which would have been quite characteristic. It is curious that though in both his editions of Turton's *Manual* Gray adopted *Marpessa* as the subgenus for *Cl. bidens* = *laminata* he never alluded to his 1821 paper.

It may not be out of place here to recapitulate the history of the misattribution to Pulteney, 1799, of the name *nigricans*. The unanimity with which successive compilers of synonymy copy each from his predecessor without ever referring to the original work is remarkable and productive of many quite unnecessary errors. As we pointed out a short time since (*Proc. Malac. Soc.*, xiv, Sept. 1820, p. 85) Ström's *Turbo bidentatus* (*Det Trondh. Selsk. Skrift.*, iii, 1765,

p. 436, pl. vi, fig. 17) being an indeterminable species, his name, which has been applied to our British shell, must be abandoned.¹ Pulteney's "Catalogues", which were to have formed part of vol. iii of Hutchins' *History of Dorset*, were never really published: the whole stock was burnt in a fire at the printers in 1808 (Rackett MS.). Pulteney, however, who died in 1801, had circulated some copies under a separate title page in 1799 "for the use of the compiler and his friends", and so the work became cited in literature. *No plates accompanied this issue*, and the name *Turbo nigricans* does not appear in its pages. On p. 46, however, there is a record of *Turbo bidens*; this, as Maton and Rackett show (*Trans. Linn. Soc.*, viii, 1807, pp. 178-9), was the well-known continental species of that name and not a British shell, as abundantly proved by their figure (op. cit., pl. v, fig. 3) taken from a specimen in Pulteney's collection, at that time in the possession of the Linnean Society.

Montagu, meantime, in 1803 (*Test. Brit.*, p. 357) had adopted the same name as Pulteney, whom he quotes, but figured (pl. xi, fig. 7) the familiar British shell. He mentions at the same time (p. 358) that the species he meant had been called by Dr. Solander, in the Portland Cabinet, *Turbo nigricans*. After the publication of Maton and Rackett's memoir he admitted the error (*Test. Brit. Suppt.*, p. 130) and adopted the trivial name of *nigricans*.

Maton and Rackett in their work cited above (p. 180) adopted Solander's name of *nigricans* for this species, and since this was the first published use of that name it must be attributed to them and date from 1807, as pointed out by Jeffreys (*Ann. & Mag. Nat. Hist.*, ser. v, vol. ii, 1878, p. 381). In their synonymy they quote "Pulteney in Hutch. Dorset, p. 46, t. 19, fig. 10", and this is the reference that has misled so many who have not consulted the original work. The "p. 46" must have been a *lapsus calami*, for, as we have seen, the name does not occur there, only *Turbo bidens* as correctly cited by Maton and Rackett themselves (p. 178); whilst the plate reference, as throughout their memoir, is to the second edition of Pulteney's "Catalogues", which Rackett had then in hand, but which was not issued until 1813, and there the description of the shell appears on p. 51.

Our shell proved subsequently to be identical with Draparnaud's *Pupa rugosa* of 1801, afterwards *Clausilia rugosa* of 1805; hence Draparnaud's name has priority and the correct synonymy, omitting earlier authors who had not fully discriminated it, will be:—

¹ The name appears to have been adopted in British lists because in the late Dr. O. Boettger's "Syst. Verzeichn. d. lebenden Arten d. Landschnecken-Gattung *Clausilia*" (17. & 18. *Ber. Offenbach. Ver. Naturk.*, p. 71) it occurs in the synonymy of *Cl. rugosa* marked with an asterisk, implying that types had been seen by the author. In reply, however, to one of us [A. S. K.] some years ago Dr. Boettger wrote that the asterisk in question was a printer's error, and that he had never seen types of that species.

1801. *Pupa rugosa*, Draparnaud, Tabl. Moll. France, p. 63.
 1803. *Turbo bidens*, Linn., Montagu, Test. Brit., p. 357, pl. xi,
 fig. 7. [Non Linné.]
 1805. *Clausilia rugosa*, Draparnaud, Hist. Moll. France, p. 73,
 pl. iv, figs. 19, 20.
 1807. *Turbo nigricans*, Maton and Rackett, Trans. Linn. Soc.,
 viii, p. 180.
 1808. *Turbo nigricans*, Montagu, Test. Brit. Suppt., p. 131.
 1813. *Turbo nigricans*, Rackett in Pulteney, Cat. Dorset, 2nd ed.,
 p. 51, pl. xix, fig. 10.
 etc. etc. etc. etc.

Our continental confrères, whose notions of what constitutes a species differs considerably from ours, recognize a form under the name "*Cl. nigricans*, Pult.", which to our mind is nearer to the *Cl. rugosa* of Draparnaud, as figured and described by him, than the scarce, more coarsely sculptured form to which they attach the latter name. Draparnaud, as well known, in addition to the type gave two varieties, " β minor, fusca, minus striata . . . a moins de tours à la spire," and " γ minor, pallide fusca". In the "Tableau" he attributes 12 to 13 whorls to the type form and 9 to 10 to each of the varieties. Férussac, who probably knew Draparnaud's species better than those who came after him, in April, 1820 (*Journ. Phys.*, xc, p. 301), when treating of British shells, distinctly referred to *nigricans* as a synonym of *rugosa*. Again in January, 1821 (*Tabl. syst. Limaçons*, p. 67), he did the same. Pfeiffer it was, in 1848, who first distinguished two species under these names (*Mon. Helic. Viv.*, ii, pp. 475-6), but did so by making *dubia*, Drap., a synonym of "*nigricans*, Pult." It was Bourguignat in 1877 who introduced (*Ann. Sci. Nat.*, sér. vi, Zool., tom. vi, art. 2, pp. 33-4) the current view among continental conchologists. He does not appear to have consulted Draparnaud's collection and he ignored Férussac's opinion, but since Draparnaud had cited as habitat "Sur les murs", concluded the species must exist in the neighbourhood of that naturalist's native city, Montpellier. There, after search, he found a form, which he admitted was "peu commun", and, therefore, one would have thought would have been the less likely to be selected by Draparnaud as typical; nevertheless he proceeded to describe this as the type form of Draparnaud's *rugosa*. He next identified the var. β with *nigricans*, passing by the var. γ , and under *Cl. parvula* (op. cit., p. 49) makes no allusion to its possible identity with either the var. β or γ of Draparnaud's *rugosa*. Locard, Bourguignat's disciple, followed closely on the same lines both in his "Prodromus" (*Ann. Soc. Agric. Lyon*, sér. v, tom. iv, 1882, p. 426) and in his *Coquilles terrestres de France*, 1894 (pp. 282, 284). In the latter he referred a strongly striate form, which is apparently only an extreme variety, to *rugosa*, noting it as "peu commun", while the ordinary form he dubbed *nigricans* and admitted to be common. The following

year when he discussed the contents of Draparnaud's cabinet (*Ipsa Draparnaudi Conchilia*, 1895, p. 93) Locard was only able to find therein one of the three forms, which he identified with the typical one, and said that Bourguignat's description of it was very good. Although the forms β and γ were not present he had no hesitation in referring them to *nigricans* and *parvula* respectively.

Having been kindly favoured by Comm. Caziot with specimens of *rugosa* and *nigricans* as understood on the continent, and by Mr. W. J. Wintle with a large quantity, collected at Caldey, of *rugosa* as we understand it, we have come to the conclusion that Férussac was correct and that the *nigricans* of Maton and Rackett is identical with the *rugosa* of Draparnaud, of which the *rugosa* of our continental confrères and even the *crenulata* of Risso are extreme varieties (this was also the opinion of Dr. Boettger, 17. & 18. *Ber. Offenbach. Ver. Naturk.*, 1878, p. 71), while Draparnaud's var. β was in all probability identical with *parvula* of Studer, the var. γ being indeterminate.

Cl. rugosa, Drap., being the type reduces the *Plicaphora* of Hartmann (1844) = *Pyrostoma* of Vest (1867) to a synonym for *Clausilia*, s.s.; while, on the other hand, it restores *Marpessa* of Gray. (1821) to generic rank.

Hartmann's names, which are perfectly valid, have been strangely set aside by the authorities. In addition to *Plicaphora* (*Erd- & Süssw. Gasterop.*, p. 216, 1844) monotype *Cl. plicatula*, Drap., we find on the same page, *Laciniaria* monotype *Cl. plicata*, Drap., that has precedence of H. and A. Adams' *Alinda* (*Genera Moll.*, ii, p. 182, 1855) and must replace it.

Dr. A. Wagner, basing his conclusions not only on the shell, but more particularly on the radula and genitalia (the clausium and its accompanying apparatus proving unreliable), proposed an entirely new classification in 1913 (Rossmässler's *Icon.*, N.F., xxi). This after the publication of a paper by Frankenberg in 1916 (*Zool. Anz.*, xlvii, pp. 221-36) he considerably modified in 1920-1 (*Nachrbl. Deutsch. Malak. Gesell.*, and its continuation, *Archiv f. Molluskenkunde*, li, lii), and not improbably will have to still further alter with increasing knowledge. Still, his scheme will doubtless be in the main adopted by malacologists, although, to take one instance, his proposal to degrade *Balea* to a subgenus of *Alinda* (i.e. *Laciniaria*), however correct on anatomical grounds alone, is not likely to prove acceptable to systematists, quite apart from the fact that *Balea* being the older name would in that case have to stand for the genus. Nor will systematists be willing to adopt all his new names, which, as common with most anatomists, he has often introduced regardless of the prior claims of predecessors. Fortunately he has not designated types so that we are hence enabled by supplying his omission to redress where necessary the wrong done.

Neoserbica, Wagner (*Nachrbl.*, li, p. 135), established to include

Macedonica, Boettger, monotype *Cl. macedonica*, Rossm. + *Serbica*, Boettger, monotype *Cl. transiens*, Mlldff. + two odd species from other groups. We here designate *Cl. macedonica* as type of *Neoserbica*, which will, with *Serbica*, then fall into synonymy under *Macedonica*.

Leucostigma, Wagner (ibid., p. 145), type by tautonomy *Cl. leucostigma* (Ziegl.) Rossm. Boettger, by error, made this species the type of *Papillifera*, Vest, overlooking the fact that Vest's own type was *Cl. papillaris*, Müll. = *bidens*, Linn.

Aprosphyra, Wagner (*Arch.*, lii, p. 9), comprises several subgenera, of which *Aprosphyra*, s.s., includes in part the *Stereophædusa* of Boettger, but not its type + *Megalophædusa*, Boettger, in part, but including its type, *Cl. yokohamensis*, Crosse. We, therefore, designate this last as type of *Aprosphyra*, which thus becomes a synonym of *Megalophædusa*.

Macrenoica, Wagner (ibid., p. 10), another subgenus of *Aprosphyra*, includes two species out of Boettger's *Euphædusa* + *Cl. javanica*, the type of Boettger's *Pseudonenia* + one species of his *Acrophædusa* + *Cylindrophædusa*, Boettger, monotype *Cl. cylindrica*, Gray. We, therefore, designate *Cl. javanica* as type of *Macrenoica*, which thus, with *Cylindrophædusa*, becomes a synonym of *Pseudonenia*.

Polyptychephora, Wagner (ibid., p. 10), a subgenus of *Aprosphyra*, includes one species of *Formosana*, Boettger, and one of *Oospira*, Boettger, with many species of later dates by other authors. We designate *Cl. elisabethæ*, Mlldff., as the type.

Synprosphyra, Wagner (ibid., p. 12). We designate *Cl. rudis*, Bav. & Dautz., as the type.

Neostyrica, Wagner (ibid., p. 107), for two species included by Boettger in "*Pirostoma*". We designate *Cl. styriaca*, A. Schm., as the type.

Pleioptychia, A. S. Wagner [? n. gen.] (ibid., p. 149), includes Boettger's *Scrobifera*, monotype *Cl. foveicollis* (Parr.) Pfr. + *Cl. bicristata* and *Cl. rothi* of Boettger's *Hellenica*, all three being included in Boettger's Sect. *Oligoptychia*. *Cl. bicristata* had, however, already been selected by Martens in Albers "*Heliceen*", 1860, as type of *Idyla*, H. & A. Adams. Vest in 1867 named *Cl. pagana* as type of *Idyla* and was followed by Boettger in 1877. Consequently the *Idyla* of Vest and of Boettger is not that of the Adams. We designate *Cl. bicristata* (Friv.), Rossm., as type of *Pleioptychia*, which thus falls into synonym under *Idyla*, H. & A. Ad.

Polinskia, Wagner (ibid., p. 151), genotype *Cl. litotes*, Parr. in A. Schm., had been included by Boettger in *Polyptychia*.

We append a purely tentative synopsis of the family on Wagner's lines with the necessary modifications in nomenclature so far as we are able to follow them out, and would invite assistance in rendering it more complete and correct.

So far as the British species are concerned, the following would appear to be the best arrangement:—

Family CLAUSILIIDÆ.

Gen. BALEA.

B. perversa (Linn.).

Gen. LACINIARIA.

L. biplicata (Mont.).

Gen. CLAUSILIA.

C. rugosa, Drap.

C. dubia, Drap.

†*C. parvula* (Studer) Fér.

†*C. pumila* (Ziegl.) C. Pfr.

†*C. ventricosa*, Drap.

C. rolphii, Leach.

Gen. MARPESSA.

M. laminata (Mont.).

(Those marked with a † being extinct in Britain.)

TENTATIVE SYNOPSIS OF THE CLAUSILIIDÆ, BASED ON WAGNER'S CLASSIFICATION.

* is prefixed to the names of species which are here for the first time designated as types.

† is prefixed to genera, etc., whose members are only known in the fossil state.

§ is prefixed to names not included in the Zoological Record.

** Boettger's subdivisions (*a, b, c*, etc.) have for convenience sake been left under their original genera, although the true position of many of them is at present uncertain.

Family CLAUSILIIDÆ.

Subfam. METACLAUSILIINÆ (*Metabaleinæ* of Wagner).

Gen. REINIA, Kobelt. Monotype: *C. variegata*, A. Ad.

LAMINIFERA, Boettger. Type: *C. rhombostoma*, Bttg.

a. Pyrenaica, Boettger. Monotype: *C. pauli*, Mabilie.
(Syn. *Tortula*, Westerlund, 1878.)

b. †Laminifera, s.s.

GRACILIARIA, Bielz. Type: *C. concilians*, A. Schm. (Vest, 1867).

FUSULUS, Fitzinger. Type: *C. varians* (Ziegl.) C. Pfr.
(Vest, 1867).

§POLINSKIA, Wagner. Genotype: *C. litotes* (Parr.) A. Schm.

ACROTOMA, Boettger. Type: *C. komarowi*, Bttg. (West-
erld., 1902).

(Syn. *Thalestris*, Lindholm. Type: *C. sobrievskii*, Rozen.)

IDYLA, H. & A. Adams (*non Vest, nec Boettger*). Type:
C. bicristata (Friv.) Rossm. (Mts. in Albers, 1860).

(Syn. *Scrobifera*, Boettger. Monotype: *C. foveicollis*
(Parr.) Pfr.

§*Pleioptychia*, A. S. Wagner [? gen. nov.]. Type:

**C. bicristata* (Friv.) Rossm.)

Gen. OLIGOPTYCHIA, Boettger. Type: *C. lævicollis* (Parr.) Charp.

(Syn. *Crucita*, Westerlund, 1878.)

a. *Oligoptychia*, s.s. [= *Armenica*, Boettger].

b. *Scrobifera*, Boettger [now a synonym of *Idyla*, H. & A. Adams].

c. *Hellenica*, Boettger. Type: *C. pikermiana*, Roth.

Subfam. CLAUSILIINÆ (*Baleina* of Wagner).

Gen. NEOSTYRIACA, Wagner. Type: *C. styriaca*, A. Schm.

BALEA (Prideaux MS.) Gray. Type: *Turbo perversus*, Linn.

LACINIARIA, Hartmann. Monotype: *C. plicata*, Drap.

(Syn. *Alinda*, H. & A. Adams. Type: *C. biplicata* Mont. (Mts. 1860).

Idyla, Vest (and Boettger, non Adams). Type: *C. pagana* (Ziegl.) Rossm.

a. *Idyla*, s.s.

b. *Bitorquata*, Boettger. Type: *C. bitorquata* (Friv.) Rossm.

c. *Bulgarica*, Boettger. Type: *C. varnensis*, Pfr.

Strigilecula, n.n., for *Strigiliaria*, Vest [non Rafinesque, 1815 (Pelecyp.)]. Type: *C. vetusta* (Ziegl.) Rossm.)

Subg. VESTIA, Hesse, for *Uncinaria*, Vest, non Froel (Vermes). Type: *C. elata* (Ziegl.) Rossm.

(Syn. *Pseudalinda*, Boettger. Type: *C. montana*, Stz.)

LACINIARIA, s.s.

a. *Laciniaria*, s.s. [= *Alinda* of Boettger].

b. *Index*, Boettger. Monotype: *C. index*, Mousson.

EUXINA, Boettger. Type: *C. hetæra* (Friv.) Pfr. (Westerld., 1902).

(Syn. *Mentissoidea*, Boettger. Type: **C. fusorium*, Mousson.

§ *Wagneria*, Hesse. Genotype: *C. thracica*, Hesse.)

a. *Polyptychia*, Boettger. Type: *C. duboisi*, Charp.

b. *Galeata*, Boettger. Type: *C. schwerzenbachi* (Parr.) Charp.

c. *Strumosa*, Boettger. Type: *C. strumosa* (Friv.) Pfr.

d. *Mucronaria*, Boettger. Monotype: *C. acuminata*, Mousson.

e. *Euxina*, s.s. [= *Hetæra* of Boettger].

f. *Acroeuxina*, Boettger. Monotype: *C. huebneri*, Rossm.

g. *Megaleuxina*, Boettger. Monotype: *C. sandbergeri*, Mousson.

h. Caucasica, Boettger. Type: *C. somchetica*, Pfr.

i. Mæsta, nom. nov. for *Laciniaria*, Boettger (1877, non Hartmann, 1844). Type: *C. mæsta*, Fér.

Subg. *MENTISSA*, H. & A. Adams. Type: *C. canalifera*, Rossm. (Marts., 1860).

EUXINASTRA, Boettger. Genotype: *C. hamata*, Bttg.

? *MICROPONTICA*, Boettger. Monotype: *C. closta*, Bttg.

? *OLYMPICOLA*, Hesse. Monotype: *C. olympica* (Friv.) Pfr.

(Syn. *Olympia*, Vest, non Risso, 1826 (Crust.))

Gen. *CLAUSILIA*, Draparnaud. Type: *Turbo bidens*, Mont. = *C. rugosa*, Drap. (Turton, 1831).

(Syn. *Plicaphora*, Hartmann. Monotype: *C. plicatula*, Drap.

Pyrostoma, Vest. Type: *C. plicatula*, Drap.

Erjavicia, Brusina. Type: *C. bergeri*, Mayer.)

Subg. *CLAUSILIA*, s.s.

KUZMICIA, Brusina. Type: *C. dubia*, Drap.

Subfam. *MARPESSINÆ* (*Clausiliinæ* of Wagner).

Gen. *SERRULINA*, Mousson. Type: *C. serrulata*, Midd. (Kobelt, 1904).

a. Serrulina, s.s.

b. Filosa, Boettger. Monotype: *C. filosa*, Mouss.

§*SYNPROSPHYMA*, Wagner. Type: **C. rudis*, Bav. & Dautz.

MEGALOPHÆDUSA, Boettger. Type: *C. yokohamensis*, Crosse.

(Syn. *Stereophædusa*, Boettger [pars].

Aprosphyra, Wagner. Type: **C. yokohamensis*, Crosse.)

Subg. §*POLYPTYCHEPHORA*, Wagner. Type: **C. elisabethæ*, Mildf.

PSEUDONENIA, Boettger. Type: *C. javana*, Pfr.

(Syn. *Cylindrophædusa*, Boettger. Type: *C. cylindrica*, Gray.

Macrenoica, Wagner. Type: **C. javana*, Pfr.)

MEGALOPHÆDUSA, s.s.

Gen. *PHÆDUSA*, H. & A. Adams. Type: *C. corticina*, Busch. (Mts., 1860).

a. Euphædusa, Boettger. Type: *C. shangaiensis*, Pfr.

b. Pseudonenia [now a subg. of *Megalophædusa*].

c. Stereophædusa, Boettger. Type: *C. valida*, Pfr.

d. Megalophædusa [now a separate genus].

e. Formosana, Boettger. Type: *C. swinhoëi*, Pfr.

f. Oospira, Blanford. Type: *C. philippiana*, Pfr.

g. Acrophædusa, Boettger. Type: *C. cornea*, Phil.

h. Cylindrophædusa, Boettger [now a syn. of *Pseudonenia*, Bttg.].

i. Hemiphædusa, Boettger. Type: *C. pluviatilis*, Bens.

Gen. DILATARIA, Vest. Type: *C. succineata* (Ziegl.) Rossm.
a. Banatica, Boettger. Monotype: *C. tenuilabris*,
 Rossm.

c. Dilataria, s.s.

d. Charpentieria, Stabile. Type: *C. diodon*, Stud.

MARPESSA, Gray. Type: *C. laminata*, Mont. (Gray,
 1840).

a. Serbica [now a syn. of *Macedonica*].

b. Marpessa, s.s.

(Syn. *Clausiliastra*, Pfr. Type: *C. laminata*, Mont.)

Subfam. ALOPIINÆ.

Gen. PAPILLIFERA, Hartmann. Type: *C. papillaris* (Müll.)=
bidens, L.

a. Lampedusa, Boettger [now a subgenus of *Delima*].

b. Isabellaria [now a subgenus].

c. Venusta, Boettger [now a syn. of *Isabellaria*].

d. Græca, Boettger. Monotype: *C. græca*, Pfr.

e. Papillifera, s.s.

Subg. §LEUCOSTIGMA, Wagner. Type: **C. leucostigma* (Ziegl.)
 Rossm.

ISABELLARIA, Vest. Type: *C. isabellina*, Pfr.

(Syn. *Venusta*, Boettger. Type: *C. venusta*, A.
 Schm.)

PAPILLIFERA, s.s.

Gen. TRILOBA, Vest. Type: *C. sandrii*, Küster.

a. Triloba, s.s.

b. Macedonica [now a separate genus].

MACEDONICA, Boettger. Monotype: *C. macedonica*,
 Rossm.

(Syn. *Serbica*, Boettger. Monotype: *C. transiens*,
 Mildff.)

§*Neoserbica*, Wagner. Type: **C. macedonica*,
 Rossm.)

DELIMA, Hartmann. Type: *C. lævissima* (Ziegl.) Rossm.
 (Mts., 1860).

a. Gibbula, Boettger. Type: *C. gibbula* (Ziegl.) Rossm.

b. Stigmatica, Boettger. Type: *C. stigmatica* (Ziegl.)
 Rossm.

c. Piccata, Boettger. Monotype: *C. piccata* (Ziegl.)
 Rossm.

d. Itala, Boettger. Type: *C. itala*, Mart.

e. Tirolica, Boettger. Type: *C. stentzi*, Rossm.

f. Dalmatica, Boettger. Type: *C. conspurcata*, Jan.

g. Binodata, Boettger. Type: *C. binodata* (Ziegl.)
 Rossm.

h. Lævissima, Boettger. Type: *C. lævissima* (Ziegl.)
 Rossm.

§*Albanica*, Boettger. Type: †*C. semilabiata* (Kutsch) Waldff.

i. *Montenegrina*, Boettger. Type: *C. cattaroensis* (Ziegl.) Rossm.

k. *Substricta*, Boettger. Type: *C. substricta* (Parr.) A. Schm.

l. *Robusta*, Boettger. Type: *C. robusta*, K.

m. *Semirugata*, Boettger. Type: *C. semirugata* (Ziegl.) Rossm.

Subg. *DELIMA*, s.s.

CARINIGERA, Möllendorff. Type: *C. eximia*, Mlldff. (Westerld. 1902).

SICILIARIA, Vest. Type: *C. grohmanniana*, Partsch.
a. *Siciliaria*, s.s.

b. *Trinacria*, Boettger. Type: *C. crassicostata*, Ben.

LAMPEDUSA, Boettger. Monotype: *C. lampedusæ*, Calc.

(Syn. §*Mauretania*, Boettger. Type: *C. tristrami*, Pfr.)

Gen. §*GARNIERIA*, Gredler. Genotype: *C. fuchsi*, Gredler.

MEDORA, H. & A. Ad. Type: *C. macarana* (Ziegl.) Rossm. (Mts., 1860).

Subg. *CRISTATARIA*, Vest. Type: *C. colbeauiana* (Parr.) Pfr.

ALBINARIA, Vest. Type: *C. carulea*, Fér.

AGATHYLLA, H. & A. Ad. Type: *C. exarata* (Ziegl.) Rossm. (Mts., 1860).

MEDORA, s.s.

Gen. *ALOPIA*, H. & A. Adams. Type: *C. livida*, Menke (Mts., 1860).

Subg. *HERILLA*, H. & A. Ad. Type: *C. dacica* (Friv.) Pfr. (Mts., 1860).

a. *Balkanica*, n.n., for *Turcica*, Boettger (non H. & A. Adams, 1854). Monotype: *C. frivaldskiana*, Rossm.

b. *Herilla*, s.s.

ALOPIA, s.s.

a. *Attica*, Boettger. Monotype: *C. guicciardii*, Heldr.

b. *Alopiia*, s.s.

Gen. *PROTOHERILLA*, Wagner. Type: **C. balceiformis*, Boettger.

INSERTÆ SEDIS.

Gen. *PSEUDALINDA*, Boettger. Type: *C. montana*, Stentz (Mts., Zool. Rec., 1878).

a. *Pseudalinda*, s.s.

- b. *Mira*, Boettger. Monotype: *C. mirabilis* (Parr.) A. Schm.
- Gen. NENIA, H. & A. Adams. Type: *C. tridens*, Schweigger (Mts., 1860).
- MACROPTYCHIA, Boettger. Type: **C. senaariensis*, Pfr. (Kobelt's selection of *C. schweinfurthi*, Mts., is invalid since it was not one of the original species).
- BOETTGERIA (Heynemann MS.), Boettger. Type: **C. crispa*, Lowe.
- HETEROPTYCHIA, Westerlund. Type: *C. helvola*, Küst.
- DIADOMA, Westerlund. Type: *C. torticollis*, Oliv.
- †EUTRIPTYCHIA, Boettger = *Triptychia*, Sandberger (non *Triptycha*, Müller, 1859). Type: *C. antiqua*, Schübl. (Bttg., 1877).
- a. *Terperia*, nov. Type: **C. terveri*, Mich.
- b. *Eutriptychia*, s.s.
- c. *Plioptychia*, Boettger. Monotype: *C. vulgata*, Rossm.
- †EUALOPIA, Boettger. Type: **C. plionecton*, Bttg.
- †CONSTRICTA, Boettger. Type: **C. kochi*, Bttg.
- †EMARGINARIA, Boettger. Monotype: *C. schaefferiana*, Bttg.
- †CANALICIA, Boettger. Type: *C. articulata*, Sbg.
- †PSEUDIDYLA, Boettger. Type: **C. moersingensis*, Sbg.
- †DISJUNCTARIA, Boettger. Monotype: *C. oligogyra*, Bttg.

In the foregoing Synopsis the following new names have been proposed:—

- Strigilecula*, n.n. for *Strigiliaria*, Vest, p. 304.
- Mæsta*, „ *Laciniaria*, Bttg., p. 305.
- Balkanica*, „ *Turcica*, Bttg., p. 307.
- Terperia* for sect. a of †*Eutriptychia*, Bttg., p. 308.